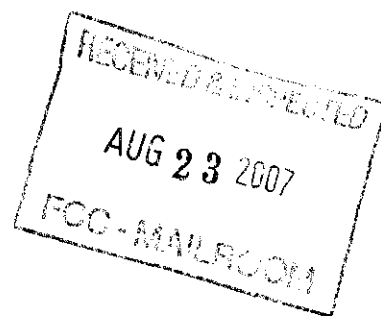


Before the  
**Federal Communications Commission**  
445 12<sup>th</sup> St., S.W.  
Washington, D.C. 20554



In the Matter of )

Amendment of Parts 2 and 25 of the )  
Commission's Rules to Allocate Spectrum and )

IB Docket No. 07-101  
(FCC 07-86)

Adopt Service Rules and Procedures to Govern )  
The Use of Vehicle-Mounted Earth Stations in )  
Certain Frequency Bands Allocated to the Fixed- )  
Satellite Service )

To: The Commission

**COMMENTS OF INTELICOM TECHNOLOGIES, INC.**

Intellicom Technologies, Inc. ("Intellicom") hereby submits comments in support of the above captioned. Intellicom urges the Commission to commence a rulemaking to facilitate the licensing of terrestrial mobile terminals with similar provisions to those already established for earth stations on vessels ("ESVs").

1. **Routine Licensing** - Intellicom encourages the FCC to routinely allow the use of sub-meter, currently considered "non-compliant", fixed and tracking antennas.
2. **Spectral Density Profile** - Intellicom believes that rules should state the EIRP spectral density profile, similar to ITU-R S.728-1, and not an antenna gain profile per FCC 25.209.
3. **Technical Brief** - Licensees should be required to provide a technical brief and/or test data showing how the EIRP spectral density is managed, what margins are included for pointing inaccuracies, and what management systems are in place for routine carrier shut down or EIRP spectral density reduction resulting from antenna pointing errors or operational failure.

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4. **Antenna Pointing Accuracy** – Intellicom does not believe that the FCC needs to specify an antenna pointing accuracy, but rather to specify the off axis EIRP spectral density and require the licensee to provide a technical brief and/or test data (possibly witnessed by a third party) showing how the off axis EIRP spectral density will be met. In this way, the industry could develop tracking antenna systems at different price points. Antennae having poor tracking accuracy would be disadvantaged in that they would have to provide larger EIRP spectral density margins to account for pointing errors.
5. **Transmitter Mute** - A VMES must be able to measure pointing error and must mute its transmitter when it's pointing error (adjusted for error in this measurement) causes any planned EIRP spectral density margins to be exhausted. In other words, the VMES designer/operator shall select a maximum pointing error, shall provide EIRP spectral density margins appropriate for this pointing error, shall measure pointing error, and shall mute the transmitter within 100 mS when the pointing error (adjusted for error in this measurement) is exceeded. Pointing error measurement accuracy shall be supported by range measurements or analysis at the time of the license filing.
6. **Positive Control** – a rule, such as the following, should be specified for positive control from a hub earth station.

“No VMES shall transmit unless it can demodulate a unique carrier originating from a hub which specifies the time and frequencies for the VMES to transmit on.”
7. **Data logging** – The FCC may wish to require data logging of VMES terminals, but in future consider removing this requirement if few interference events actually occur.

8. **Primary Basis** - Licensees should be licensed on a primary basis, but only with the receive protections equivalent to a typical 1m "compliant" antenna and only if the antenna is in a fixed location or region of say less than 100 miles in radius.
9. **Frequency Band** - Intellicom also encourages the FCC to address the use of sub-meter antennae in additional satellite frequency bands such as Ka and X bands and where same frequency band satellites may be spaced substantially farther than 2 degrees. If there is no existing satellite and no registered plans for a satellite within 2 degrees, then meeting off-axis emissions at 2 degrees is an unnecessary requirement. In our opinion, it would be reasonable to grant a license with less stringent off-axis emissions having a period validity only until a satellite actually occupies an adjacent orbital slot. Similarly, off-axis emissions limitations should be waived for all angles where no satellites exist or are planned for the frequency band requested.

Respectfully submitted,

**INTELLICOM TECHNOLOGIES, INC.**

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